

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A head for the linear dimension checking of mechanical pieces, ~~[[including]]~~ comprising:

a casing ~~[[1]]~~,

a movable arm ~~[[7]]~~ with a first portion ~~[[8]]~~ partly located inside the casing ~~[[1]]~~ and a second portion ~~[[9]]~~ entirely located at the exterior of the casing ~~[[1]]~~,

a position transducer ~~[[11]]~~ inside the casing ~~[[1]]~~ and associated with said first portion ~~[[8]]~~,

a feeler ~~[[19]]~~ coupled with said second portion ~~[[9]]~~ for contacting the piece to be checked,

a zero-setting mechanism ~~[[40]]~~ for adapting the head, by adjusting the ~~[[mutual]]~~ relative arrangement between the first portion ~~[[8]]~~ and the second portion ~~[[9]]~~ of the movable arm ~~[[7]]~~, to check pieces with different nominal dimensions, the zero-setting mechanism ~~[[40]]~~ including a movable mechanical reference ~~[[27]]~~ between the movable arm ~~[[7]]~~ and the casing ~~[[1]]~~, arranged at the exterior of the casing ~~[[1]]~~, the movable mechanical reference ~~[[27]]~~ being adapted to ~~[[take]]~~ have at least two positions, to hold said first portion ~~[[8]]~~ of the movable arm ~~[[7]]~~ in a preset position with respect to the casing ~~[[1]]~~ and to release the first portion ~~[[8]]~~, respectively,

[[characterized in that]] wherein the zero-setting mechanism [[(40)]] includes a quick locking/unlocking device [[(20)]] between said first portion [[(8)]] and said second portion [[(9)]] of the movable arm [[(7)]].

2. (Currently Amended) The head according to claim 1, wherein the zero-setting mechanism [[(40)]] includes a first abutment and reference surface [[(43)]], integral with the casing [[(1)]], said movable mechanical reference [[(27)]] including a second abutment and reference surface [[(44)]], integral with the movable arm [[(7)]], said first abutment and reference surface [[(43)]] and said second abutment and reference surface [[(44)]] being adapted to mutually cooperate for defining said preset position.

3. (Currently Amended) The head according to claim 2, wherein the quick locking/unlocking device [[(20)]] defines said second abutment and reference surface [[(44)]].

4. (Currently Amended) The head according to claim 3, wherein said quick locking/unlocking device [[(20)]] is adapted to take an unlocking position, at which said first abutment and reference surface [[(43)]] and said second abutment and reference surface [[(44)]] are in contact with each other for defining said preset position, and a

locking position at which said first abutment and reference surface [(43)] and said second abutment and reference surface [(44)] are separate from each other.

5. (Currently Amended) The head according to claim 4, wherein the quick locking/unlocking device [(20)] includes locking surfaces [(32,31)] integral with said first portion [(8)] and said second portion [(9)] of the movable arm [(7)], and thrust elements [(24)] adapted to urge said locking surfaces [(32,31)] one against the other for locking said first portion [(8)] and said second portion [(9)] of the movable arm [(7)] with respect to each other in said locking position of the quick locking/unlocking device [(20)].

6. (Currently Amended) The head according to claim 5, wherein the quick locking/unlocking device [(20)] includes a resilient compression element [(35)] adapted to keep said locking surfaces [(32,31)] resting on each other in said unlocking position of the quick locking/unlocking device [(20)].

7. (Currently Amended) The head according to [[claim 5 or]] claim 6, wherein said thrust elements include a thrust pin [(24)] adapted to urge said locking surfaces [(32,31)] one against the other along a locking axis.

8. (Currently Amended) The head according to [[one of the]] claim[[s from]] 5 [[to 7]], wherein the quick locking/unlocking device [[[20)]] includes a transmission element [[[27)]]], coupled with said thrust elements [[[24)]]] and manually-operated, the transmission element [[[27)]]] and the thrust elements [[[24)]]] being coupled with said first portion [[[8)]]] of the movable arm [[[7)]]].

9. (Currently Amended) The head according to claim 8 [[as dependent on claim 7]], wherein said thrust elements include a thrust pin adapted to urge said locking surfaces one against the other along a locking axis and wherein said transmission element [[[27)]]] is substantially disk-shaped, is coupled with the thrust pin [[[24)]]] and is adapted to perform rotation displacements about the locking axis, the transmission element [[[27)]]] defining said movable mechanical reference and including a curved lateral surface [[[30)]]] that defines said second abutment and reference surface [[[44)]]].

10. (Currently Amended) The head according to claim 9, wherein said second abutment and reference surface [[[44)]]] is defined by an area with larger radial dimensions of said curved lateral surface [[[30)]]].

11. (Currently Amended) The head according to claim 9 [[or claim 10]], including a drive lever [[[29)]]] radially coupled with the transmission element [[[27)]]] for enabling

an operator to manually drive the transmission element [(27)] to perform said rotation displacements about the locking axis for changing from said locking position to said unlocking position of the quick locking/unlocking device [(20)], and vice versa.

12. (Currently Amended) The head according to [(one of the)] claim[(s from)] 2 [(to 11)], wherein the casing [(1)] includes a closure plate [(3)] with an opening [(14)] adapted to allow the passage and measurement displacements of the movable arm [(7)], and a protruding element [(41)], integral with the closure plate [(3)], that carries said first abutment and reference surface [(43)].

13. (Currently Amended) The head according to claim 12, wherein a reference dowel [(42)] is coupled in an adjustable way to said protruding element [(41)] and defines said first abutment and reference surface [(43)].

14. (Currently Amended) The head according to [(one of the preceding)] claim[(s)] 1, wherein each of said first portion [(8)] and said second portion [(9)] of the movable arm [(7)] includes an end part [(8t,9t)] and a central part [(8c,9c)] of the movable arm [(7)], rigidly coupled with each other, the quick locking/unlocking device [(20)] being arranged between said central parts [(8c,9c)], the movable mechanical reference

[[(27)]] being coupled with the central part [[(8c)]] in the first portion [[(8)]] of the
movable arm [[(7)]].